

Attorney Docket No: IMMR-038/06US

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of Louis B. Rosenberg et al.

Serial No.: Unassigned

Examiner: Unassigned

Confirmation No.: Unassigned

Art Unit: Unassigned

Filed: Herewith

For: **DIGITIZING SYSTEM AND ROTARY TABLE FOR DETERMINING 3-D
GEOMETRY OF AN OBJECT (As amended)**

U.S. Patent and Trademark Office
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**INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §1.97(b)**

In accordance with the duty of disclosure set forth in 37 C.F.R. §1.56, Applicant(s) hereby submits the following information in conformance with 37 C.F.R. §§1.97 and 1.98.

- ☐ Pursuant to 37 C.F.R. §1.98, a copy of each document cited in the attached Form PTO/SB/08 is enclosed.
- ☒ No copies of the publications listed on the attached Form PTO/SB/08A are being provided pursuant to 37 C.F.R. §1.98(d) because the publications were previously cited by or submitted to the Office in prior Application Serial No. 09/687,923 to which the above-identified application claims priority under 35 U.S.C. §120.
- ☐ No copies of any U.S. patents or U.S. patent application publications listed on the attached Form PTO/SB/08A are being provided pursuant to 37 C.F.R. §1.98 because this application was filed after June 30, 2003.
- ☐ Publication(s) listed on the attached Form PTO/SB/08A were cited in a foreign search or examination report corresponding to application serial no. and mailed on .
- ☐ Enclosed is a copy of a non-English publication(s) . Pursuant to §609 of the M.P.E.P., Applicant submits the attached foreign search or examination report, which cites such non-English language publication(s).

- ☐ Enclosed is a copy of a non-English publication(s) _____. English language publication _____ (copy enclosed) claims priority from this non-English publication.
- ☐ Enclosed is an explanation of non-English publication(s) ____ for which an English translation is not available.
- ☐ Enclosed is an English translation of non-English publication(s) ____ cited in the attached Form PTO/SB/08A.
- ☐ Enclosed is a copy of pending patent Application Serial No. _____.

This Information Disclosure Statement is filed within any one of the following time periods:

- ☒ within three months from the filing date of this national application other than a CPA under 37 C.F.R. § 1.53(d);
- ☐ within three months from the date of entry of the national stage as set forth in 37 C.F.R. §1.491 in this international application;
- ☐ before the mailing date of a first office action on the merits; or
- ☐ before the mailing of a first office action after the filing of a request for continued examination under 37 C.F.R. § 1.114.

It is respectfully requested that the Examiner consider the above-noted information and return an initialed copy of the attached Form PTO/SB/08A to the undersigned.

Dated: February 20, 2004

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Respectfully submitted,
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By: _____



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			Application Number		
			Filing Date		
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			Group Art Unit		
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Sheet	1	of	8	Attorney Docket Number	IMMR-038/06US

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code ² (if known)		
		5,785,630		Bobick, et al.	07/28/1998
		5,766,016		Sinclair et al.	06/16/1998
		5,547,382		Yamasaki et al.	08/20/1996
		5,466,213		Hogan et al.	11/14/1995
		5,334,027		Wherlock	08/02/1994
		5,309,140		Everett, Jr., et al.	05/03/1994
		5,299,810		Pierce et al.	04/05/1994
		5,275,174		Cook	01/04/1994
		5,271,290		Fischer	12/21/1993
		5,240,417		Smithson et al.	08/31/1993
		5,212,473		Louis	05/18/1993
		5,078,152		Bond et al.	01/07/1992
		5,038,089		Szakaly	08/06/1991
		5,035,242		Franklin et al.	07/30/1991
		5,022,407		Horch et al.	06/11/1991
		5,019,761		Kraft	05/28/1991
		4,934,694		McIntosh	06/19/1990
		4,930,770		Baker	06/05/1990
		4,891,764		McIntosh	01/02/1990
		4,794,392		Selinko	12/27/1988
		4,713,007		Alban	12/15/1987
		4,708,656		de Vries et al.	11/24/1987
		4,599,070		Hladky et al.	07/08/1986
		4,581,491		Boothroyd	04/08/1986
		4,513,235		Acklam et al.	04/23/1985
		4,236,325		Hall et al.	12/02/1980
		4,160,508		Salisbury, Jr.	07/10/1979
		3,911,416		Feder	10/07/1975
		3,903,614		Diamond et al.	09/09/1975
		3,902,687		Hightower	09/02/1975
		3,623,064		Kagan	11/23/1971
		3,517,446		Corlyon et al.	06/30/1970
		3,497,668		Hirsch	02/24/1970
		3,220,121		Cutler	11/30/1965
		3,157,853		Hirsch	11/17/1964

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				IMMR-038/06US	

		2,906,179		Bower	09/29/1959
		3,490,059		Paulsen et al.	01/13/1970
		3,531,868		Stevenson	10/06/1970
		3,875,488		Crocker et al.	04/01/1975
		3,890,958		Fister et al.	06/24/1975
		3,944,798		Eaton	03/16/1976
		4,148,014		Burson	04/03/1979
		4,216,467		Colston	08/05/1980
		4,448,083		Hayashi	05/15/1984
		4,550,221		Mabusth	10/29/1985
		4,571,834		Fraser et al.	02/25/1986
		4,601,206		Watson	07/22/1986
		4,638,798		Shelden et al.	01/27/1987
		4,653,011		Iwano	03/24/1987
		4,654,648		Herrington et al.	03/31/1987
		4,676,002		Slocum	06/30/1987
		4,679,331		Koontz	07/14/1987
		4,688,983		Lindbom	08/25/1987
		4,704,909		Grahn et al.	11/10/1987
		4,750,487		Zanetti	06/14/1988
		4,769,763		Trieb et al.	09/06/1988
		4,787,051		Olson	05/16/1986
		4,791,934		Brunnett	08/07/1986
		4,798,919		Miessler et al.	03/11/1988
		4,800,721		Cemenska et al.	02/13/1987
		4,803,413		Kendig et al.	07/15/1986
		4,807,152		Lane et al.	03/02/1987
		4,811,608		Hilton	11/06/1986
		4,815,006		Andersson et al.	09/16/1987
		4,819,195		Bell et al.	01/20/1987
		4,840,634		Muller et al.	06/10/1987
		4,879,556		Duimel	10/26/1987
		4,888,877		Enderle et al.	12/26/1989
		4,891,889		Tomelleri	01/09/1990
		4,907,970		Meenen, Jr.	03/13/1990
		4,945,501		Bell et al.	07/31/1990
		4,961,138		Gorniak	10/02/1990
		4,961,267		Herzog	10/09/1990
		4,962,591		Zeller et al.	10/16/1990
		4,982,504		Söderberg et al.	01/08/1991
		5,007,085		Greanias et al.	04/09/1991
		5,007,300		Siva	04/16/1991

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		5,040,306		McMurtry et al.	08/20/1991
		5,050,608		Watanabe et al.	09/04/1990
		5,072,361		Davis et al.	02/01/1990
		5,088,046		McMurtry	07/28/1989
		5,088,055		Oyama	02/22/1990
		5,095,303		Clark et al.	03/27/1990
		5,103,404		McIntosh	12/20/1989
		5,116,051		Moncreif et al.	06/08/1990
		5,125,261		Powley	05/28/1991
		5,126,948		Mitchell et al.	11/08/1989
		5,128,671		Thomas, Jr.	04/12/1990
		5,131,844		Marinaccio et al.	04/08/1991
		5,132,672		Clark	07/21/1992
		5,134,782		Breyer et al.	08/04/1992
		5,139,261		Openiano	08/18/1992
		5,142,506		Edwards	08/25/1992
		5,142,931		Menahem	09/01/1992
		5,143,505		Burdea et al.	09/01/1992
		5,148,377		McDonald	09/15/1992
		5,150,023		Toyama et al.	09/22/1992
		5,168,453		Nomaru et al.	12/01/1992
		5,181,181		Glynn	01/19/1993
		5,184,306		Erdman et al.	02/02/1993
		5,184,319		Kramer	02/02/1990
		5,185,561		Good et al.	07/23/1991
		5,187,874		Takahashi et al.	02/08/1991
		5,189,806		McMurtry et al.	08/17/1992
		5,204,824		Fujimaki	08/23/1990
		5,208,763		Hong et al.	09/14/1990
		5,209,131		Baxter	10/12/1990
		5,220,260		Schuler	10/24/1991
		5,228,356		Chuang	11/25/1991
		5,230,623		Guthrie et al.	12/10/1991
		5,243,266		Kasagami et al.	07/02/1992
		5,246,316		Smith	03/06/1992
		5,251,127		Raab	07/31/1990
		5,251,156		Heier et al.	07/11/1991
		5,259,120		Chapman et al.	07/20/1992
		5,259,894		Sampson	01/26/1990
		5,264,768		Gregory et al.	10/06/1992
		5,296,846		Ledley	10/05/1992

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				IMMR-038/06US	

		5,347,476		McBean, Sr.	
		5,351,692		Dow et al.	06/09/1993
		5,354,162		Burdea et al.	08/31/1992
		5,379,663		Hara	11/22/1993
		5,384,460		Tseng	11/03/1993
		5,389,865		Jacobus et al.	12/02/1992
		5,396,267		Bouton	01/07/1993
		5,397,323		Taylor et al.	10/30/1992
		5,402,582		Raab	02/23/1993
		5,412,880		Raab	
		5,414,337		Schuler	06/11/1993
		5,417,696		Kashuba et al.	03/23/1993
		5,428,748		Davidson et al.	09/24/1992
		5,429,140		Burdea et al.	06/04/1993
		5,429,682		Harlow, Jr. et al.	08/19/1993
		5,436,542		Petelin et al.	01/28/1994
		5,445,166		Taylor	04/06/1994
		5,465,323		Mallet	09/19/1990
		5,467,289		Abe et al.	10/12/1993
		5,467,763		McMahon et al.	07/20/1994
		5,510,977		Raab	08/02/1994
		5,512,919		Araki	03/30/1993
		5,513,100		Parker et al.	06/10/1993
		5,526,576		Fuchs et al.	09/12/1994
		5,576,727		Rosenberg et al.	06/05/1995
		5,591,924		Hilton	04/23/1993
		5,601,084		Sheehan	05/26/1995
		5,611,147		Raab	03/03/1995
		5,623,582		Rosenberg	07/14/1994
		5,625,576		Massie et al.	10/01/1993
		4,593,470		Davies	08/13/1984
		4,775,289		Kazerooni	09/25/1987
		4,857,816		Rogozinski et al.	10/08/1987
		4,949,119		Moncrief et al.	01/12/1989
		5,193,963		McAffee et al.	10/31/1990
		5,629,594		Jacobus et al.	10/16/1995
		5,701,140		Rosenberg et al.	07/12/1994
		5,794,356		Raab	11/18/1996
		5,880,714		Rosenberg et al.	01/15/1997
		6,078,876		Rosenberg et al.	10/29/1996
		6,125,337		Rosenberg et al.	12/15/1998
		4,703,443		Moriyasu	10/1987
		5,461,797		Royer et al.	10/1995
		6,366,831	B1	Raab	04/02/2002
		6,535,794	B1	Raab	03/18/2003

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FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Office ¹	Number ²	Kind Code ³ (if known)		
			0 349 086	A1	Stork Kwant B.V.	01/03/1990
			WO9520787			08/03/1995
			WO9520788			08/03/1995
			WO9502801			01/26/1995
			WO9532459			11/30/1995
			470257			02/12/1992
			541500			05/12/1993
			655301			11/15/1993
			640902			03/01/1995
			634150			01/18/1995

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		
		Baigrie, "Electric Control Loading – A Low Cost, High Performance Alternative," <i>Proceedings of Interservice/Industry Training Systems Conference</i> , pp. 247-254, November 6-8, 1990		
		Iwata, "Pen-based Haptic Virtual Environment," 0-7803-1363-1/93 IEEE, pp. 287-292, 1993		
		Russo, "The Design and Implementation of a Three Degree of Freedom Force Output Joystick," <i>MIT Libraries Archives</i> pp. 1-131, May 1990, archived 8/14/90		
		Brooks et al., "Hand Controllers for Teleoperation - A State-of-the-Art Technology Survey and Evaluation," <i>JPL Publication 85-11</i> , NASA-CR-175890; N85-28559, pp. 1-84, 03/1/1985		
		Jones et al., "A perceptual analysis of stiffness," ISSN 0014-4819 Springer International (Springer-Verlag); <i>Experimental Brain Research</i> , Vol. 79, No. 1, pp. 150-156, 1990		
		Burdea et al., "Distributed Virtual Force Feedback, Lecture Notes for Workshop on Force Display in Virtual Environments and its Application to Robotic Teleoperation," <i>1993 IEEE International Conference on Robotics and Automation</i> , pp. 25-44, 05/02/1993		
		Snow et al., "Model-X Force-Reflecting-Hand-Controller," NT Control No. NPO-17851; JPL Case No. 7348, pp. 1-4 with 45 pages of attachments, 06/15/1989		
		Ouh-Young, "Force Display in Molecular Docking," Doctoral Dissertation, University of North Carolina at Chapel Hill, UMI Order No. 9034744, p. 1-369, 1990		

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¹ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

² For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

³ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.

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				IMMR-038/06US	

	Tadros, "Control System Design for a Three Degree of Freedom Virtual Environment Simulator Using Motor/Brake Pair Actuators," <i>MIT Archive</i> , pp. 1-88, February 1990, archived 8/13/90	
	Caldwell et al., "Enhanced Tactile Feedback (Tele-Taction) Using a Multi-Functional Sensory System," 1050-4729/93, pp. 955-960, 1993	
	Adelstein et al., "Design and Implementation of a Force Reflecting Manipulandum for Manual Control research," DSC-Vol. 42, <i>Advances in Robotics</i> , pp. 1-12, 1992	
	Gotow et al., "Controlled Impedance Test Apparatus for Studying Human Interpretation of Kinesthetic Feedback," WA11-11:00, pp. 332-337	
	Stanley et al., "Computer Simulation of Interacting Dynamic Mechanical Systems Using Distributed Memory Parallel Processors," DSC-Vol. 42, <i>Advances in Robotics</i> , pp. 55-61, ASME 1992	
	Russo, "Controlling Dissipative Magnetic Particle Brakes in Force Reflective Devices," DSC-Vol. 42, <i>Advances in Robotics</i> , pp. 63-70, ASME 1992	
	Kontarinis et al., "Display of High-Frequency Tactile Information to Teleoperators," <i>Telemanipulator Technology and Space Telerobotics</i> , Won S. Kim, Editor, Proc. SPIE Vol. 2057, pp. 40-50, Sep. 7-9, 1993	
	Patrick et al., "Design and Testing of A Non-reactive, Fingertip, Tactile Display for Interaction with Remote Environments," <i>Cooperative Intelligent Robotics in Space</i> , Rui J. deFigueiredo et al, Editor, Proc. SPIE Vol. 1387, pp. 215-222, 1990	
	Adelstein, "A Virtual Environment System For The Study of Human Arm Tremor," <i>Ph.D. Dissertation</i> , Dept. of Mechanical Engineering, MIT, June 1989, archived 3/13/90	
	Bejczy, "Sensors, Controls, and Man-Machine Interface for Advanced Teleoperation," <i>Science</i> , Vol. 208, No. 4450, pp. 1327-1335, 1980	
	Bejczy et al., "Generalization of Bilateral Force-Reflecting Control of Manipulators," <i>Proceedings Of Fourth CISM-IFTOMM</i> , Sep. 8-12, 1981	
	McAfee et al., "Teleoperator Subsystem/Telerobot Demonstrator: Force Reflecting Hand Controller Equipment Manual," <i>JPL</i> 1988, JPL D-5172	
	Minsky, "Computational Haptics: The Sandpaper System for Synthesizing Texture for a Force-Feedback Display," <i>Ph.D. Dissertation</i> , MIT, June 1995, archived 7/6/95	
	Jacobsen et al., "High Performance, Dexterous Telerobotic Manipulator With Force Reflection," <i>Intervention/ROV '91 Conference & Exposition</i> , Hollywood, Florida, May 21-23, 1991	
	Shimoga, "Finger Force and Touch Feedback Issues in Dexterous Telemanipulation," <i>Proceedings of Fourth Annual Conference on Intelligent Robotic Systems for Space Exploration</i> , Rensselaer Polytechnic Institute, Sep. 30- Oct. 1, 1992	
	IBM Technical Disclosure Bulletin, "Mouse Ball-Actuating Device With Force and Tactile Feedback," Vol. 32, No. 9B, February 1990	
	Terry et al., "Tactile Feedback In A Computer Mouse," <i>Proceedings of Fourteenth Annual Northeast Bioengineering Conference</i> , University of New Hampshire, March 10-11, 1988	
	Howe, "A Force-Reflecting Teleoperated Hand System for the Study of Tactile Sensing in Precision Manipulation," <i>Proceedings of the 1992 IEEE International Conference on Robotics and Automation</i> , Nice, France, May 1992	
	Eberhardt et al., "OMAR - A Haptic display for speech perception by deaf and deaf-blind individuals," <i>IEEE Virtual Reality Annual International Symposium</i> , Seattle, WA, Sep. 18-22, 1993	
	Rabinowitz et al., "Multidimensional tactile displays: Identification of vibratory intensity, frequency, and contractor area," <i>Journal of The Acoustical Society of America</i> , Vol. 82, No. 4, October 1987	

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Sheet	7	of	8	Attorney Docket Number	
				IMMR-038/06US	

	Bejezy et al., "Kinesthetic Coupling Between Operator and Remote Manipulator," <i>International Computer Technology Conference, The American Society of Mechanical Engineers</i> , San Francisco, CA, August 12-15, 1980	
	Bejezy et al., "A Laboratory Breadboard System For Dual-Arm Teleoperation," <i>SOAR '89 Workshop, JSC</i> , Houston, TX, July 25-27, 1989	
	Ouhyoung et al., "A Low-Cost Force Feedback Joystick and Its Use in PC Video Games," <i>IEEE Transactions on Consumer Electronics</i> , Vol. 41, No. 3, August 1995	
	Marcus, "Touch Feedback in Surgery," <i>Proceedings of Virtual Reality and Medicine The Cutting Edge</i> , Sep. 8-11, 1994	
	Bejezy, et al., "Universal Computer Control System (UCCS) For Space Telerobots," CH2413-3/87/0000/0318501.00 1987 IEEE, 1987	
	Fisher, S.S. et al., "Virtual Environment Display System," ACM 1986, Workshop on Interactive 3D Graphics.	
	Meyer, Kenneth et al., "Survey of Position Tracker," The Massachusetts Institute of Technology, Spring 1992, Vol. 1, No. 2, pp. 173-200.	
	"3D Human Interface Tool," 1994 Immersion Human Interface Corporation.	
	"The Personal Digitizer," 1994 Immersion Human Interface Corporation.	
	"MicroScribe-3D™ A New Dimension in Desktop Digitizing," Immersion Corporation.	
	Vortex-3D™ 3D Digitizing and Modeling Software," Immersion Corporation.	
	"High Performance Model of the Immersion Probe," Immersion Probe-MD™, Immersion Corporation.	
	Rosenberg, Louis B., Perceptual Design of A Virtual Rigid Surface Contact, Center for Design Research, Stanford University, Armstrong Laboratory, AL/CF-TR-1995-0029, April 1993.	
	Jacobsen, S.C. et al., "High Performance, High Dexterity, Force Reflective Teleoperator II," ANS Topical Meeting on Robotics & Remote Systems," Albuquerque, New Mexico February 24-27, 1991, pp. 1-10.	
	Kotoku, Tetsuo et al., (Environment Modeling for the Interactive Display (EMID) Used in Telerobotic Systems," IEEE November 3-5, 1991, pp. 99-1004.	
	Bejezy, Antal K., "The Phantom Robot: Predictive Displays for Teleoperation with Time Delay," IEEE 1990, pp. 546-550.	
	Buttolo, Pietro et al., "Pen-Based Force Display for Precision Manipulation in Virtual Environments," IEEE March 1995, pp. 1-8.	
	Iwata, Hiroo et al., "Volume Haptization," IEEE 1993, pp. 16-18.	
	Ellis, R.E. et al., "Design and Evaluation of a High-Performance Prototype Planar Haptic Interface," ASME December 3, 1993, DSC-Vol. 49, pp. 55-64.	
	Adelstein Bernard D. et al., "A High Performance Two Degree-of-Freedom Kinesthetic Interface," Massachusetts Institute of Technology 1992, pp. 108-112.	
	Rosenberg, Louis B., "The Use of Virtual Fixtures to Enhance Operator Performance in Time Delayed Teleoperation," Crew Systems Directorate Biodynamics and Biocommunications Division Wright-Patterson, Air Force Material Command, March 1993, pp. 1-45.	
	Adelstein, Bernard D. et al., "Design and Implementation of a Force Reflecting Manipulandum for Manual Control Research," 1992, pp. 1-24.	

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				IMMR-038/06US	

		Fischer, Patrick et al., "Specification and Design of Input Devices for Teleoperation," 1990.	
		Noll, A. Michael, "Man-Machine Tactile Communication Dissertation," Polytechnic Institute of Brooklyn, June 1971, pp. 1-88.	
		Hannaford, Blake et al., "Performance Evaluation of a Six-Axis Generalized Force-Reflecting Teleoperator," IEEE May/June 1991, Vol. 21, No. 3, pp. 620-633.	
		Ouh-young, Ming et al., "Using a Manipulator for Force Display in Molecular Docking," IEEE 1988, pp. 1824-1829.	
		Rosenberg, Louis B., "Virtual Haptic Overlays Enhance Performance in Telepresence Tasks," SPIE 1994.	
		Ouh-young, Ming et al., "Force Display Performs Better than Visual Display in a Simple 6-D Docking Task," IEEE 1989, pp. 1462-1466.	
		Yamakita, M. et al., "Tele-Virtual Reality of Dynamic Mechanical Model, IEEE July 7-10, 1992, pp. 1103-1110.	
		Herndon, J.N. et al., "The State-of-the-Art Model M-2 Maintenance System," Proc. of the 1984 National Topical Meeting on Robotics and Remote Handling in Hostile Environments, American Nuclear Society, pp. 59-65.	
		Batter, James J. et al., "Grobe-1: A Computer Display to the Sense of Feel," pp. TA-4-188-TA-4-192.	
		Gotow, J.K. et al., "Perception of Mechanical Properties at the Man-Machine Interface," IEEE 1987, pp. 688-689.	
		"Foot-Operated Mouse," IBM Technical Disclosure Bulletin, April 1986, Vol. 28, No. 11.	
		Tavkhelidze, D.S., "Kinematic Analysis of Five-Link Spherical Mechanisms," Mechanism and Machine Theory, 1974, Vol. 9, pp. 181-190.	
		"Cursor Waldo," Designer's Corner-Useful Technology for Your Idea File, Design News, March 7, 1993, pp. 63.	
		Kotoku, Tetsuo, "A Predictive Display with Force Feedback and its Application to Remote Manipulation System with Transmission Time Display," IEEE 1992, July 7-10, 1992, pp. 239-246.	
		Howe, Robert D., "Task Performance with a Dextrous Teleoperated Hand System," Proceedings of SPIE, November 1992, Vol. 1833, pp. 1-9.	
		Millman et al., "Design of Four Degree-Of-Freedom Force-Reflecting Manipulandum with a Specified Force/Torque Workspace," 1991, IEEE, pgs. 1488-1492.	

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